Spill Management Program
Prevention and Response Activities

1996 Annual Report

WASHINGTON STATE DEPARTMENT OF ECOLOGY

February 1997
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Washington Department of Ecology

Regional Office 24-Hour Oil and Hazardous Materials Spill Reporting Numbers

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Need to Know:

- Reporting Party
- Contact Phone(s)
- Responsible Party
- Material Released
- Location
- Dead/Injured Fish or Wildlife
- Quantity
- Concentration
- Cleanup Status

Or call the state Emergency Management Division's 24-hour number at:

1-800-258-5990 or **1-800-OILS-911**

For EPA and U.S. Coast Guard reporting, call the National Response Center at:

1-800-424-8802

Emergency numbers for other states and federal agencies:

Idaho: Communications Center (208) 327-7422 *Oregon:* Emergency Management (503) 378-6377

EPA Region X, Seattle: (206) 553-1263 *British Columbia:* Provincial Emergency Program (800) 663-3456

Washington State Department of Ecology
Spill Management Program
Prevention and Response Activities
1996 Annual Report

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Spill Management Program

Cover photograph:
Following a spill of at least 1,000 gallons of diesel fuel, jet fuel, and gasoline on June 17, 1996, Olympic Pipe Line Company quickly took steps to clean up contaminated soil and reconstruct a section of the underground pipeline in Snohomish County. Workers are shown here preparing to replace the section of underground pipeline which was cracked. The cause of this spill was attributed to a pipeline section that buckled and began leaking due to pipeline movement. This movement was believed to be caused by improper back-filling when the line was installed in 1972. [See pages 28 (spills) and 31 (enforcement) for more details.]

Photo by Elin Storey

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Also available in March of 1997:
"Oil Spills in Washington State: *A Historical Perspective"*
Ecology Publication #97-252

Letter from the Director

Dear Fellow Citizens:

Although I currently measure my tenure as director for the Department of Ecology in weeks instead of months and years, I am already well-acquainted with the risks of a major oil spill in Washington State. By the petroleum industry's own estimates, approximately 12 billion gallons of oil is transported into and across the Evergreen State every year. The potential for an environmental catastrophe is only a tanker collision, fuel barge grounding, pipeline rupture, or tanker truck accident away.

That's why in 1996 the Department of Ecology's Spill Management Program placed a heavy emphasis on spill prevention and preparedness. We finished a guidance manual to aid the state's 43 largest oil handling facilities comply with the state's operations and design standards rule, and industry has submitted spill prevention facility operations manuals which we will review. We have also spent significant resources participating in about 75 response drills. Our program is on the front line when spills occur. In 1996, we responded to 891 field incidents involving oil and other hazardous substance spills.

This report contains a review of 1996 activities and provides a progress report on how Ecology is implementing our legislatively mandated initiatives. I thank everyone who has participated in and supported our Spill Program. It has been a job done well. Washington's resources are much safer because of your efforts.

Sincerely,

Tom Fitzsimmons
Director
Department of Ecology

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Quick action on the part of spill responders in Yakima kept this 2,000 gallon home heating oil spill from reaching the Yakima River. No other vehicles were involved in the October 18, 1996 accident in Yakima River Canyon.

Introduction

This publication is a report to the citizens of Washington regarding the Department of Ecology's progress in fulfilling its oil spill prevention and response directives. A great deal has been accomplished since the Washington State Legislature enacted the Oil Spill Prevention and Response Act in 1991. Continued legislative support, coupled with public demand to keep oil and other hazardous materials out of the environment, has enabled Ecology to build one of this nation's top spill prevention and response programs.

We are continuing to strengthen our ongoing education and technical assistance program. Our citizens are already sensitive to spill issues and appreciate the value of spill prevention. They know that when spills do occur, the environmental costs surrounding cleanup and restoration are high. The best way to fight spills is to prevent them from occurring in the first place. Our next step is to continue a high level of preparedness and emphasize prevention, technical assistance, and public education.

Ecology was notified on November 8, 1996, that a 40-foot crabbing vessel was grounded on a reef near Henry Island in the San Juans. There was a 20-foot-wide sheen coming off the vessel when spill responders arrived at the scene. While only five gallons of diesel fuel and 20 gallons of hydraulic oil were spilled at the site, cleanup actions kept over 600 gallons of oil from getting into this environmentally sensitive area.

Funding and Expenditures

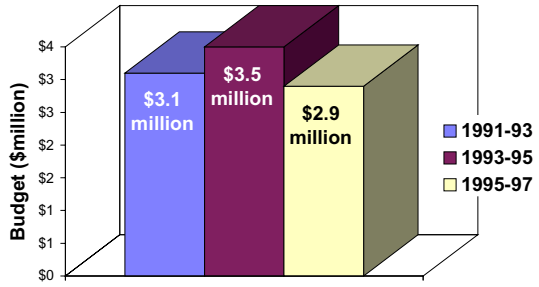
Ecology's Spill Management Program is funded through biennial appropriations from the Legislature. Two dedicated accounts — the Oil Spill Response Account and the Oil Spill Administration Account — comprise the largest funding sources.

These accounts are funded through a five cent per barrel tax on oil delivered to terminals on state navigable waters. Of this nickel a barrel tax, three cents goes to the Oil Spill Administration Account (OSAA) and two cents goes to the Oil Spill Response Account (OSRA).

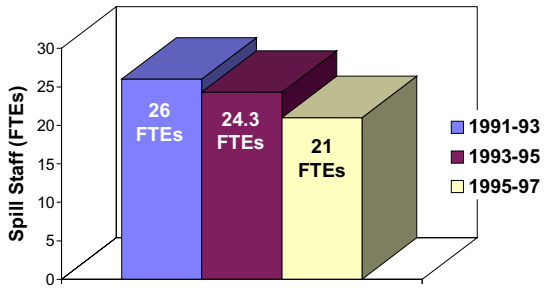
OSRA was established to pay primarily for spill cleanup and response when costs exceed $50,000 and no responsible party is available to pay. It is intended to maintain a $25 million balance. At the end of the current biennium (June 30, 1997), the anticipated OSRA fund balance should be approximately $9,600,000. Some of these funds will be shifted to OSAA to cover expenditures.

Since 1991, OSAA funding to Ecology has continued to decline due to shortfalls in the account. For the 1995-97 biennium Ecology received $2,939,000 and funded 21 FTEs (full-time employees) — a 19 percent staff reduction since 1991. For the 1993-95 biennium the amount from OSAA was $3,518,552 and paid for 24.3 FTEs, and in 1991-93 the agency received $3,064,681 and employed 26 FTEs with OSAA funding.

OSAA Funding Per Biennium



OSAA FTEs Per Biennium



Other funding sources include the Model Toxics Control Account (MTCA) which funds a portion of hazardous material spill response functions and contingency planning. MTCA appropriations for both the 1993-95 and 1995-75 bienniums were $3,038,000. This amount funded 20.9 FTEs. Ecology is also eligible to receive funding from the federal Oil Spill Liability Trust Fund for containment and cleanup of significant oil spills. Whenever possible, Ecology pursues reimbursement from the responsible party or the federal trust fund.

Ecology's Spill Management Program is continuing to focus on implementing the mandates it has been given and engaging in activities to prevent spills. Ongoing activities such as technical assistance, geographic spill response planning, spill prevention facility inspections, and education and outreach will increase and then stabilize during the next biennium. Inspections and industry preparedness drills will increase through 1997.

Cost Recovery and Savings

When spills occur, Ecology is active in recovering cleanup costs from the responsible party. In 1996, the amount recovered was $94,183 (mostly for responding to spills caused by the 1996 flooding on the Columbia River). We also recovered $132,622 for the 1994 AN PING 6 oil spill which had been appealed. This money was returned to the Oil Spill Response Account to use for future cleanups.

Penalties and resource damage assessments paid by spillers are another way the Spill Management Program recovers money from responsible parties. For 1996, the total amount received from penalties was $212,500. Ecology also received more than $142,000 from Resource Damage Assessments. This money is required by law to go into the Coastal Protection Fund (CPF), which can only be spent on restoration projects associated with a spill and on projects to reduce damage from spills.

It is also estimated that the Spill Program saved approximately $76,000 this last year by spill responders taking a much more proactive approach to cleanups.
For example, when responding to abandoned drums or containers, regional spill responders pull samples and attempt to identify the waste by Hazcatting (Hazardous Materials Categorization) prior to calling a contractor.

If the material is identified as a nonhazardous waste or used oil, responders handle the disposal themselves by either leaving it on site, or in the case of used oil, contacting an oil recycler to collect and recycle the oil at a much lower cost. These savings can be estimated at approximately $1,000 - $2,000 per container, the cost of an average contractor call.

These savings are one way the Spill Program tries to make the spill contract dollar go further during times when budgets are shrinking.

Spill response staff from Yakima cleaned up a site where 40 pounds of DDT was discarded illegally near Wapato on September 24, 1996. By doing the job themselves instead of contracting the cleanup, an estimated $4,000 was saved. After Ecology staff cleaned up the site, the state Department of Agriculture assisted with disposal of the hazardous material.

Overview

Ecology's Spill Management Program oversees spill prevention and response activities for the state's 43 largest oil handling facilities and is the lead agency for response to environmental emergencies statewide. These responsibilities are mandated under the 1990 Oil and Hazardous Substance Spills Act and the 1991 Oil Prevention and Response Act. Program responsibilities include four basic core areas — prevention, preparedness, response, and restoration.

Prevention activities include:

- Spill prevention plan review and approval;
- Facility/pipeline design standards and operations manuals;
- Public education and outreach;
- Technical assistance to facilities/pipelines, including inspections; and
- Facility personnel training and certification.

Preparedness activities include:

- Facility spill contingency plan approval, updates, and maintenance;
- Developing a unified state/federal/industry response system;
- Drills and inspections;
- Geographic response planning;
- Maintaining close coordination with coastal states and British Columbia;
- Public information, community outreach, and technical assistance; and
- Development of alternative response technology (e.g., "in situ" burning).

Response activities include:

- Emergency spill response and cleanup;
- Enforcement actions and penalties;
- Technical assistance; and
- Emergency public and media information.

Restoration activities include:

- Natural resource damage assessment coordination;
- Conducting natural resource damage assessments and developing settlement agreements;
- Public information and community outreach; and
- Restoration planning.

Spill Program Organization

Ecology's Spill Management Program is made up of two sections: Spill Prevention and Policy, and Spill Operations.

The Spill Prevention and Policy section is responsible for:

- Prevention program policy development;
- Spill program policies and procedures;
- Facility prevention plan/manual reviews and inspections;
- Technical assistance;
- Public education and outreach;
- Spill information management;
- Northwest Area Contingency Plan and Geographic Response Plan coordination;
- State Emergency Management Council coordination;
- Resource damage assessment coordination and sensitive area mapping; and
- Coordinating with British Columbia and other West Coast states regarding public policy on oil spill prevention, cooperative management of major spills by government and industry, contingency planning, resource damage assessment, and mutual aid.

Most prevention and policy staff are located at Ecology's Headquarters in Lacey and serve the program statewide.

The Spill Operations section is responsible for:

- Emergency response to marine and inland oil spills;
- Emergency response to hazardous material spills and drug labs;
- Spill investigations;
- Enforcement actions;
- Oil spill contingency plan reviews and updates;
- Planning, conducting and evaluating spill drills;
- Inspections of regulated oil handling facilities;
- Coordinating spill management with industry and other government agencies;
- Technical assistance; and
- Spill response cost recovery.

Most operations staff are located in Ecology's four regional offices. Included are Spokane, Yakima, Bellevue, and Lacey. A map showing the regional offices is located on the back cover of this report.

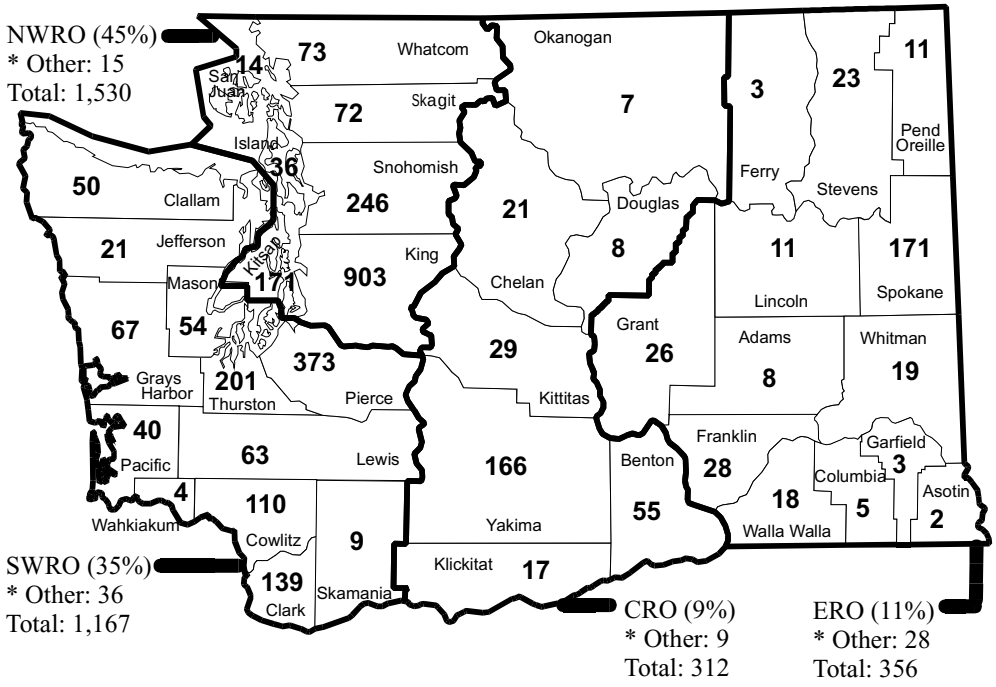
The Spill Program is responsible for overseeing cleanup of **all** spills statewide. This includes oil and hazardous material spills to state waters — rivers, streams, lakes, ponds, and marine waters. Agency staff also respond to other environmental threats such as highway accidents where oil or other hazardous materials are spilled, leaking fuel tanks, fish kills, illegal "midnight dumps," and air releases.

1996 Highlights

In 1996, the Spill Management Program:

- Received 3,365 reports of oil or hazardous material spills and conducted 891 field responses.
- Conducted 98 field responses to potentially illegal drug lab cleanup sites. This is almost double last year's total of 57.
- Participated in and evaluated approximately 75 spill preparedness drills. A drill in Port Angeles was the largest government-led spill drill in the Pacific Northwest for the past five years.

Spill Reports by County for 1996



* *"Other" refers to a spill report received at a regional office, but actually occurring in another region, state, or Canada. The regional offices include Spokane (Eastern Regional Office), Yakima (Central Regional Office), Bellevue (Northwest Regional Office), and Lacey (Southwest Regional Office).*

NOTE: The spill response data used for this annual report was obtained from Ecology's computerized Environmental Report Tracking System (ERTS), unless otherwise noted. It only includes information from the Spill Management Program and does not include spills handled by staff in other areas, such as water quality or industrial oversight.

- Ecology and the Coastal Protection Fund Steering Committee approved the first restoration project using Coastal Protection Funds obtained from a Natural Resources Damage Assessment. A damage payment of $122,969 from the 1993 NOSAC FOREST spill will be used for a U.S. Forest Service salmon restoration project on the Greenwater River.

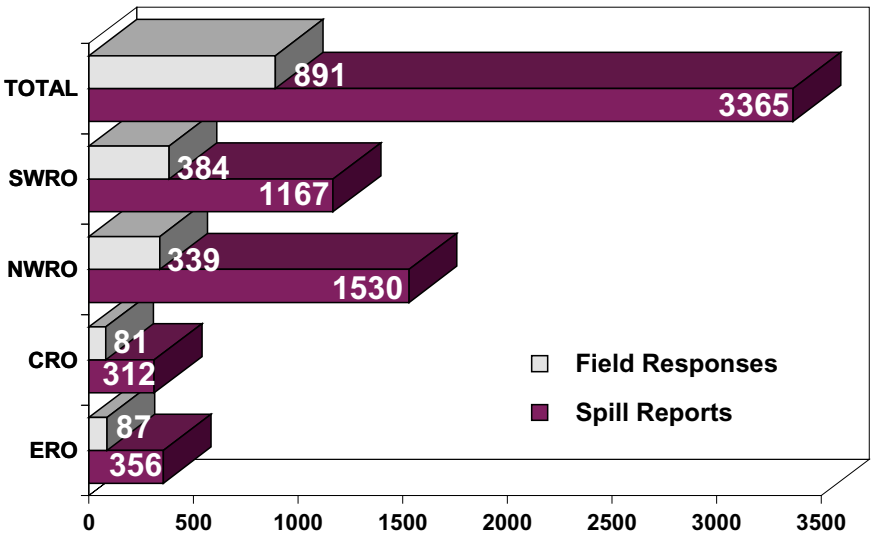
- Received resource damage assessments payments of more than $142,000 in compensation for oil spills. A number of claims are still being pursued or under development.

- Settled with the U.S. Navy, which agreed to pay $38,000 for natural resource damages caused by the USS CAMDEN's jet fuel spill in Sinclair Inlet on April 15, 1993.

- Evaluated the necessity for and conditions under which intrastate oil and petroleum transmission pipeline facilities may be regulated by Ecology. A memorandum of agreement between Ecology and the Washington Utilities Transportation Commission provides a coordinated state effort in working with pipeline facilities.

- Continued to provide public education, outreach, participation, and information.

Spill Response Activity for 1996



Spill reports include information received at Ecology's regional offices regarding oil and hazardous material spills. All reports receive a telephone or field response. Field responses are on-scene investigations of spill events. These include both large and small spills. A field response can include such things as investigation, technical assistance, cleanup, or enforcement. Not all calls received by the Spill Management Program require a field response.

Prevention

In 1991, the Washington State Legislature passed the state Oil Spill Prevention and Response Act. The law focuses on preventing oil spills while maintaining a high degree of response readiness. The law also designates Ecology as the state agency responsible for developing and implementing oil spill prevention regulations for oil handling facilities. Four chapters of spill prevention regulations were developed in response to the legislative mandate.

Currently, there are 43 oil handling facilities regulated by the agency. Most of the facilities regulated are located on or near navigable waters of the state and transfer oil in bulk via either transmission pipelines or marine vessels. In addition to developing and implementing oil spill prevention regulations, the Spill Program is also coordinating with other state and federal agencies to minimize duplicative regulatory requirements and maximize protection to the environment. The regulatory activities conducted by Ecology for preventing oil spills are addressed in the following sections.

Facility Operations and Design Standards Rule

Ecology is helping the 43 regulated state oil handling facilities operate in a manner that provides "the best achievable protection" of public health and the environment through the use of "best achievable technology." The agency is working with facilities to improve their oil transfer operations, storage tanks, secondary containment systems, and pipelines. Facilities are required to comply with the rule by June 2, 1997. Advisory inspections were conducted at regulated facilities during the past year. The purpose of the inspection is to assist facilities comply with the Facility Oil Handling Operations and Design Standards.

The main focus of the inspections includes:

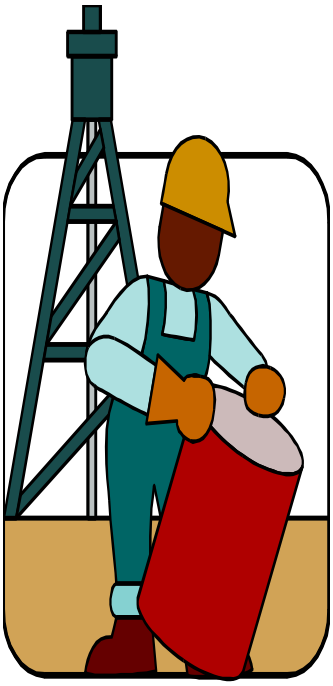
- Identifying facilities' oil transfer pipelines;
- Informing facilities about pipeline and above ground storage tank inspection and maintenance requirements;
- Evaluating current inspection procedures and provide input on how facilities can comply with tank and pipeline inspection requirements;
- Assisting facilities in complying with pipeline leak detection requirements;
- Evaluating facilities' secondary containment systems; and
- Answering any questions on oil spill prevention issues.

Facility Personnel Oil Handling Training and Certification Rule

This prevention rule targets spills at state regulated oil handling facilities which were caused by human error. Factors could include:

- Inattention;
- Fatigue;
- Not following operational procedures;
- Substance abuse;
- Complacency; and
- Inadequate training.

Ecology certifies the adequacy of training programs developed by each regulated facility. The individual facilities are responsible for using the approved program to train their employees. Presently, all 43 facilities covered under this rule have received final approval for their training and certification programs. If a facility has a significant spill, Ecology staff review the current training program and provide technical assistance to modify the program.



Facility Operations Manual Standards Rule

This rule requires all 43 regulated state oil handling facilities to operate in a manner that provides the "best achievable protection" of public health and the environment. The rule focuses on oil transfer operations. All facilities have complied with the rule by submitting a manual which will be reviewed during 1997.

Facility Oil Spill Prevention Plan Standards Rule

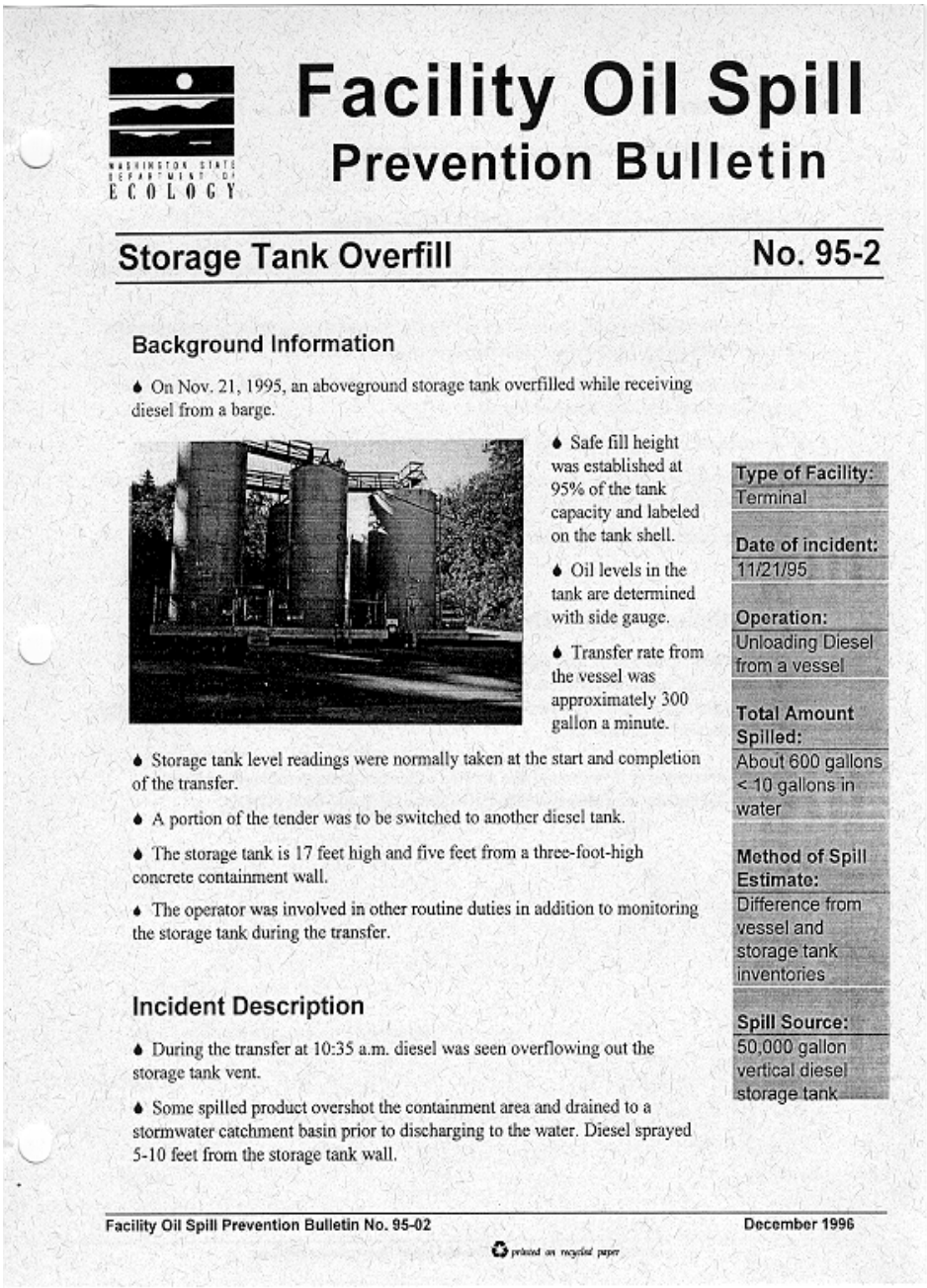
All regulated oil handling facilities must prepare and submit oil spill prevention plans. The prevention plans document all measures facilities have taken to reduce oil spill risks. All 43 regulated facilities have submitted prevention plans to Ecology for review and approval. The prevention plans will be approved if the facilities provide "Best Achievable Protection" to prevent oil spills. This plan serves as the basis for Ecology inspectors to determine that all measures to protect the environment are in place.

Memorandum between Ecology and UTC

This past year, a memorandum of understanding was developed between Ecology and the Washington Utilities and Transportation Commission (UTC). This memorandum is intended to provide a coordinated state effort in working with the five petroleum pipeline facilities in Washington. The pipelines include: Olympic, McChord, Trans-Mountain, Yellowstone, and Chevron.

Education and Public Outreach

The Spill Management Program has launched a wide variety of educational campaigns, technical assistance, public involvement activities, and information efforts to promote spill prevention awareness. The program is working with facilities regarding prevention rule compliance through advisory reviews, one-on-one consultation, workshop training sessions, and guidance such as the Spill News newsletter, handbooks, fact sheets, curriculum, and other reports. The "Facility Oil Spill Prevention Bulletin" was developed last year to help all facilities learn from the oil spill experiences of others. The second bulletin (below) was mailed to facilities in December.



WASHINGTON STATE DEPARTMENT OF ECOLOGY

Facility Oil Spill Prevention Bulletin

Storage Tank Overfill — No. 95-2

Background Information

- On Nov. 21, 1995, an aboveground storage tank overfilled while receiving diesel from a barge.

- Safe fill height was established at 95% of the tank capacity and labeled on the tank shell.
- Oil levels in the tank are determined with side gauge.
- Transfer rate from the vessel was approximately 300 gallon a minute.
- Storage tank level readings were normally taken at the start and completion of the transfer.
- A portion of the tender was to be switched to another diesel tank.
- The storage tank is 17 feet high and five feet from a three-foot-high concrete containment wall.
- The operator was involved in other routine duties in addition to monitoring the storage tank during the transfer.

Type of Facility:	Terminal
Date of incident:	11/21/95
Operation:	Unloading Diesel from a vessel
Total Amount Spilled:	About 600 gallons <10 gallons in water
Method of Spill Estimate:	Difference from vessel and storage tank inventories
Spill Source:	50,000 gallon vertical diesel storage tank

Incident Description

- During the transfer at 10:35 a.m. diesel was seen overflowing out the storage tank vent.
- Some spilled product overshot the containment area and drained to a stormwater catchment basin prior to discharging to the water. Diesel sprayed 5-10 feet from the storage tank wall.

Facility Oil Spill Prevention Bulletin No. 95-02 — December 1996

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Preparedness

In an ideal world, we wouldn't have any oil or hazardous substance spills. Unfortunately, accidents and even malicious acts happen, causing these materials to enter our environment. As a result, Ecology continues to place a heavy emphasis on being prepared to respond to spills through planning, drilling, and training.

Northwest Area Contingency Plan

The Northwest Area Contingency Plan (NWACP) promotes regional coordination and guides the actions of state and federal spill responders in Washington, Oregon, and Idaho. The plan assures a consistent state and federal approach to regional spills. Industry-prepared spill contingency plans must also be consistent with the area plan.

Activities associated with the NWACP include: completing major revisions, training other agencies and industry in the principal features of the plan, and implementing consistent spill responses. These activities require significant on-going federal, state, and local coordination.

The Northwest Area Contingency Plan replaced Washington's Statewide Master Oil and Hazardous Substance Spill Contingency Plan in 1994. It was updated for the second time in 1996. The NWACP will be modified again in mid-1997. During the upcoming revision the plan will be reorganized into an Incident Command System (ICS) format. A "users guide" will also be developed for the document. These two initiatives will improve the value of the document, both as a training aid and as a quick reference guide for responders during actual spill events.

Last year, Ecology staff took the lead in developing a training program and curriculum for the NWACP. Since the contingency plan is an essential tool for all spill response actions in the region and serves as a memorandum of agreement among state and federal agencies, it is important that the entire response community have a good working knowledge of the purpose and basic policies adopted in the plan. Ecology organized and led 18 training sessions during 1996.

Geographic Response Plans

Prior to the development of Geographic Response Plans (GRPs), confusion existed regarding what should be done first when initial responders arrived at a spill site. GRPs identify and rank natural resource protection strategies for a particular region in order to reduce this confusion. GRPs have been created for Washington's marine waters and the Columbia/ Snake River system. These invaluable documents have become an integral part of the oil spill response vocabulary in Washington State.

Response contractors and cooperatives now base much of their training on GRP implementation and automatically refer to these plans in the initial stages of major spills and exercises, increasing the probability of protecting sensitive areas. Each GRP was developed collaboratively with input and cooperation from other federal, state and local governments, tribes, and private contractors.

In 1996, Ecology focused on maintaining and improving existing GRPs. For example, a cooperative effort between Ecology, EPA, the Army Corps of Engineers, other agencies, and spill response organizations resulted in a comprehensive field verification of the recently completed Snake River GRPs.

The following illustrations of the Snake River/Lower Granite Pool Area GRP show a typical priority table (below), one of the strategy maps, and the corresponding matrix (facing page) for the GRP. If the spill occurred in the Lower Granite Pool Area, a responder can:

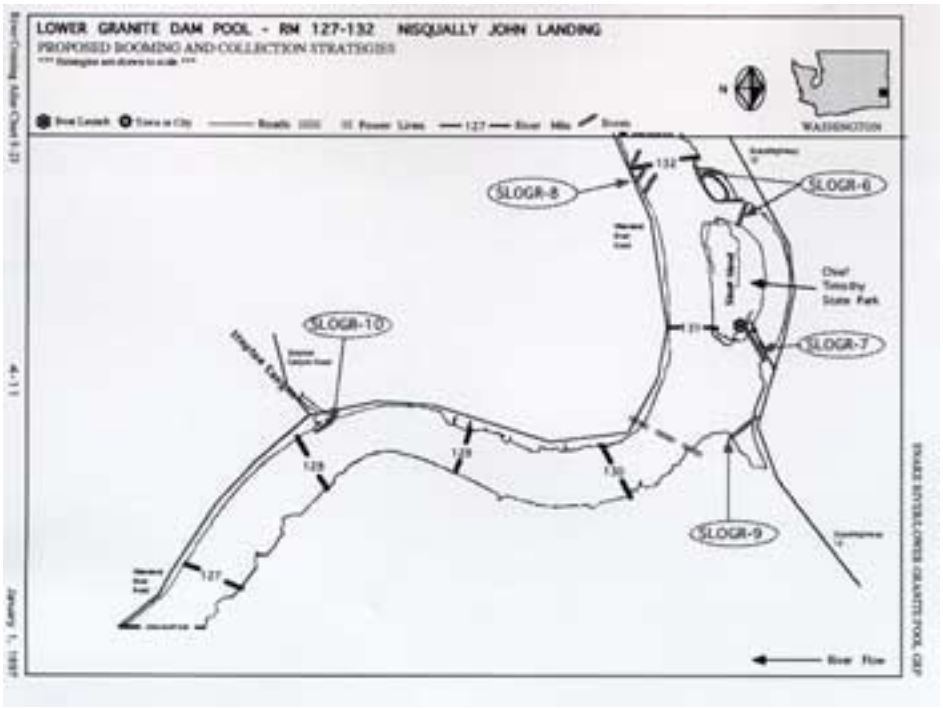
- Select from the priority table what should be done first:
- Move to the appropriate map and find the location of the strategy; and
- From the corresponding matrix get information on where, how, and what is needed to deploy the strategy.

Snake River/Lower Granite Pool Area GRP

Strategy Prioritization
Priorities for the Lower Granite Pool of the Snake River generally reflect the downstream movement of oil discharged into the river. Therefore, the first strategy downstream from the spilled oil which can be deployed before the oil arrives ranks higher in priority than strategies further downstream. However, the following table lists the top four strategies for this section of the Snake River which rank highest in importance. **Note that these priorities may change at any time during a spill based on prevailing conditions and resource agency input.**

Intent is to protect downstream and particularly vulnerable resources
SOURCE OF OIL: Upstream end of pool

PRIORITY	STRATEGY NUMBER	MAP PAGE NUMBER	COMMENTS
BOOMING PRIORITIES			
1	SLOGR-23	4-19	Protect fish structures/resources in lower pools
1	SLOGR-4, 5, 6, 7, & 8	4-9; 4-11	Chief Timothy State Park
2	SLOGR-17	4-17	Knoxway Bay
3	SLOGR-19	4-19	Wawawai



STEPTOE CANYON TO CHIEF TIMOTHY STATE PARK PROPOSED BOOMING AND COLLECTION STRATEGIES								
Snake River Mile 127 - 132								
River Mile	**Strategy**	**Location**	**Response Strategy**	**Length and Type of Boom**	**Strategy Implementation**	**Staging Area**	**Site Access**	**Resources Protected**
BOOMING STRATEGIES								
132	SLOGR-6	Chief Timothy State Park	Exclusion/ deflection	At least 1,000'	Block off slough entrances at north end of Silicott Island (between Silicott and smaller island to east) - low feasibility due to large expanse	Chief Timothy State Park - boat launch ramp/docks; shelters; camping	Chief Timothy State Park off Hwy 12: parking; boat ramp	Wetland & riparian habitat; state park; waterfowl concentrations; may be culturally sensitive Nez Perce site
132	SLOGR-7	Chief Timothy State Park - near Marker "20"	Collection	200'	Block off causeway to contain collected oil near bridge	Chief Timothy State Park - boat launch ramp/docks; shelters; camping	Chief Timothy State Park off Hwy 12: parking; boat ramp	Wetland & riparian habitat; state park; waterfowl concentrations; may be culturally sensitive Nez Perce site
132	SLOGR-8	Shoreline northwest of Silicott Island	Deflection/ collection	(3) 200'	Deflect into northwest shore to contain at west end of channel	Chief Timothy State Park - boat launch ramp/docks; shelters; camping	Wawawai River Road on north side; Chief Timothy State Park boat ramp	Downstream resources, including wetland & riparian habitat; state park; waterfowl concentrations; culturally sensitive Nez Perce sites
132	SLOGR-9	Chief Timothy State Park	Exclusion to block off Alpawa Creek. Also may help to lower pool depth: contact Lower Granite Control Room	(2) 200'	High water only - at normal flow, area becomes silt flat. Use one segment to close creek mouth; use other segment to create pocket east of creek mouth	Chief Timothy State Park - boat launch ramp/docks; shelters; camping	Chief Timothy State Park off Hwy 12: no further road access downstream on this side.	Wetland & riparian habitat; heron rookeries; state park; waterfowl concentrations; may be culturally sensitive Nez Perce site
128	SLOGR-10	Steptoe Canyon	Exclusion	100'	Wrap boom or sorbent to close off front and back entrance of trestle opening		Wawawai River Road; Steptoe Canyon Road	Canyon/riparian habitat; waterfowl concentrations

In addition to improving existing GRPs, several new GRP initiatives began in 1996. In October, Ecology and the U.S. Army co-sponsored a workshop to develop a "mini" GRP for the lower Nisqually River. This effort stemmed from a prior drill at the U.S. Army's Fort Lewis base in Pierce County that illustrated the need to develop specific response strategies for this sensitive river. The resulting GRP will be released early this year and is designed to mesh with existing Nisqually River estuary strategies contained in the South Puget Sound GRP.

In another initiative, Ecology and the U.S. Coast Guard began work last year to put GRPs on the Internet in 1997. This project will not only save paper, but also provide a new way for spill responders to access GRP information in the field using portable computers.

The existing 18 GRPs include the following waterbodies:

Marine Waters

San Juan Islands/North Puget Sound
Straight of Juan de Fuca
North Central Puget Sound
Hood Canal/Admiralty Inlet
Central Puget Sound
South Puget Sound
Grays Harbor
Willapa Bay
Outer Coast

Columbia/Snake River

Middle Columbia/Bonneville Pool Area
Middle Columbia/Dalles Pool Area
Middle Columbia/McNary Pool Area
Middle Columbia/John Day Pool Area
Lower Columbia River
Snake River/Ice Harbor Pool Area
Snake River/Lower Monumental Pool Area
Snake River/Little Goose Pool Area
Snake River/Lower Granite Pool Area

Drills

Spill drills and exercises are vital components of Ecology's spill readiness efforts. During 1996, regulated oil handling facilities throughout the state conducted numerous equipment deployment and tabletop drills to test the effectiveness of their response plans. Ecology participated in and evaluated approximately 75 drills and provided recommendations on how oil handling facilities can enhance spill response preparedness.

Approximately 40 staff from Ecology, including the Spill Management Program, participated in the largest government-led spill drill in the Pacific Northwest in five years. Sponsored and paid for by the U.S. Coast Guard as part of the National Preparedness for Response Exercise program, the drill was held in Port Angeles on April 24 and 25. The drill simulated a catastrophic oil spill in the Strait of Juan de Fuca. The drill was conducted as if no responsible private party was participating in the command structure.

Spill response staff helped the Yakima County Ammonia Response Team conduct a drill on June 8, 1996. Approximately 25 people from the area participated in the event.

One of the more promising developments during the past year was the U.S. Coast Guard's adoption of the National Interagency Incident Management System's Incident Command System (ICS). ICS is the predominant response management system in use nationwide. During drills, Ecology works with industry response management teams, state agencies, and the Coast Guard to test their ability to work within the Incident Command System. The increasing use of ICS has vastly improved oil spill response preparedness in Washington.

Oil Test Burn Proposal

In an effort to advance "in situ" burning as a spill response tool in the Pacific Northwest, Ecology, in conjunction with other state and federal spill preparedness and planning agencies in the region, proposed conducting an oil test burn in Washington's coastal waters in 1996.

In May 1996, Ecology applied to EPA headquarters in Washington, D.C., for permission to conduct four small-scale test burns 10 to 12 miles off the southern Washington coast in mid-September. Test co-sponsors included the members of the Northwest Area Committee — Washington, Oregon, Idaho, EPA Region 10, and U.S. Coast Guard Captains from Puget Sound and Portland — as well as the Regional Response Team, and Clean Sound Cooperative (a private, non-profit oil spill cleanup contractor).

The test was designed to train response personnel, evaluate different types of fireproof booms, provide research information about burn residue, and improve smoke dispersion monitoring and modeling. Under the proposal, each test burn would have involved the controlled discharge of up to 2,500 gallons of crude oil into a fireproof containment boom and igniting it on the water.

In July and August, representatives from Ecology, the state Department of Fish and Wildlife, NOAA, U.S. Coast Guard, and Clean Sound conducted a series of public workshops in the coastal communities most directly affected by the test. The group also met with environmental groups, Quinault and Shoalwater Bay Indian Nations, and officials in Grays Harbor and Pacific counties.

The group heard a wide variety of concerns from citizens and communities along the coast. As a result, test sponsors decided to suspend the burn proposal to allow state and federal agencies more time to address public concerns regarding test site location and environmental impacts. All work on the discharge application to EPA has been put on hold.

Instead, Ecology has begun work on an Environmental Impact Statement (EIS) which will analyze the significant and unavoidable environmental impacts of the proposal. The EIS will also discuss possible alternatives to the test burn and outline measures to keep environmental impacts to a minimum. Ecology has also formed an advisory committee comprised of stakeholders such as crabbing, fishing and shellfish interests, tribal members, environmentalists, and local governments to give guidance on the EIS evaluation and assist with public outreach strategies. Ecology anticipates completing the final EIS in late 1997.

Staff Training

Ecology responders are required to obtain 40-hour initial hazardous materials and safety certification as well as annual refreshers. Responders also complete training in first aid and CPR, 24-hour on-the-job training in the field, and basic Unified Command and Incident Command System familiarity. Key staff are also trained in sampling techniques, using air monitoring instruments, and characterization of products with hazardous categorization systems, as well as methods to perform oil and hazardous material spill control, containment, cleanup, and enforcement.

NWACP Training

Throughout 1996, Ecology and Coast Guard personnel have been providing Northwest Area Contingency Plan (NWACP) training sessions for agency staff and other interested parties. Formally adopted in 1994, the NWACP serves as the oil and hazardous substance spill contingency plan for the states of Idaho, Oregon and Washington, U.S. Coast Guard Captains from Puget Sound and Portland, and EPA Region 10.

The training is available upon request with priority given to regulated oil handling facilities, cleanup contractors, local governments, Indian tribes, and other entities involved in spill response and preparedness.

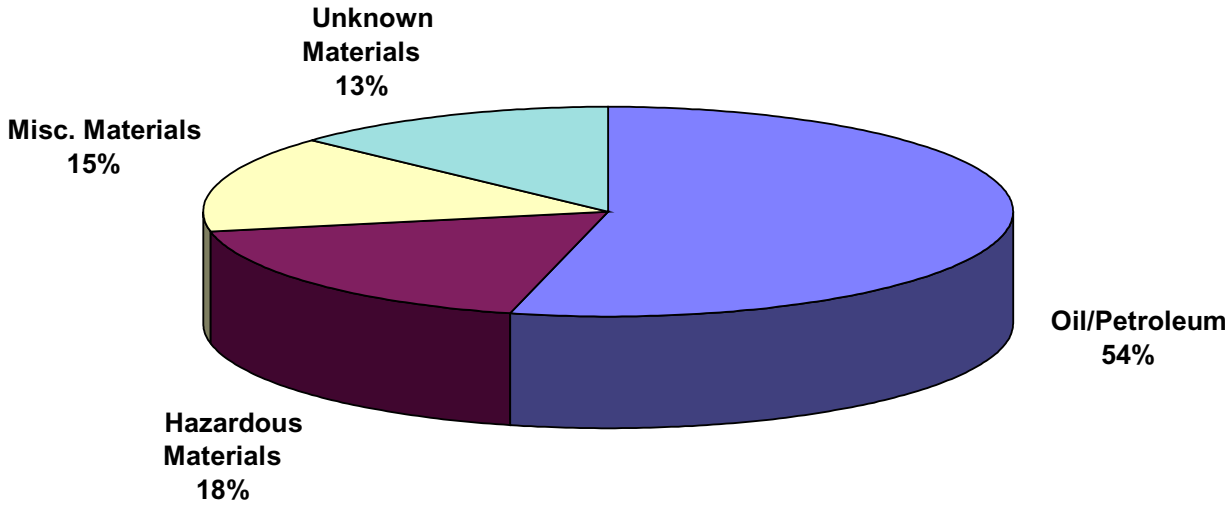
Each training presentation is unique. While the basic package takes about two hours to complete, the training can be tailored to fit the needs of a particular target audience. Trainers can also provide targeted, specific training on other NWACP items or topics related to spill response/preparedness such as Geographic Response Plans, Incident Command System, drill and exercise evaluation, and facility-specific prevention and contingency plans.

Response

Ecology responds to emergency incidents involving oil or hazardous material releases that have the potential to harm the environment and affect public health. Spill response teams based in Lacey, Seattle, Spokane, and Yakima make up a dedicated group of professionals who provide 24-hour, round-the-clock response service. In addition, Ecology is the state designated on-scene coordinator when oil is spilled to water. In 1996, Ecology received 3,365 spill reports and conducted 891 field responses.

The chart below shows the percentage breakdown for the types of spills reported to the Spill Management Program. These include oil and petroleum products, hazardous materials, miscellaneous materials, and unknown materials. The data is a statewide overview.

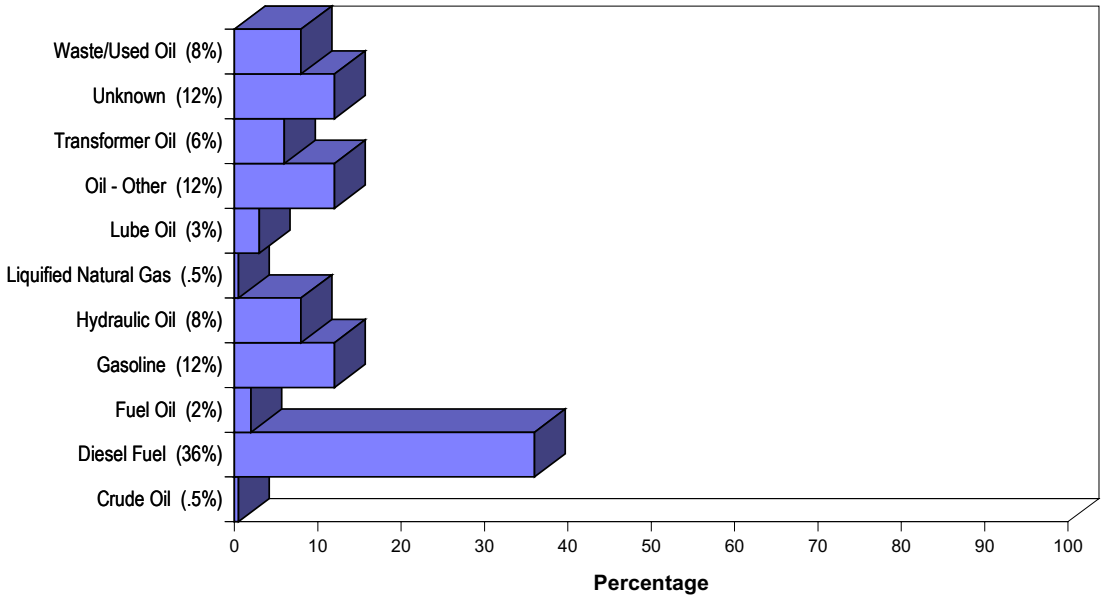
1996 Incident Reports



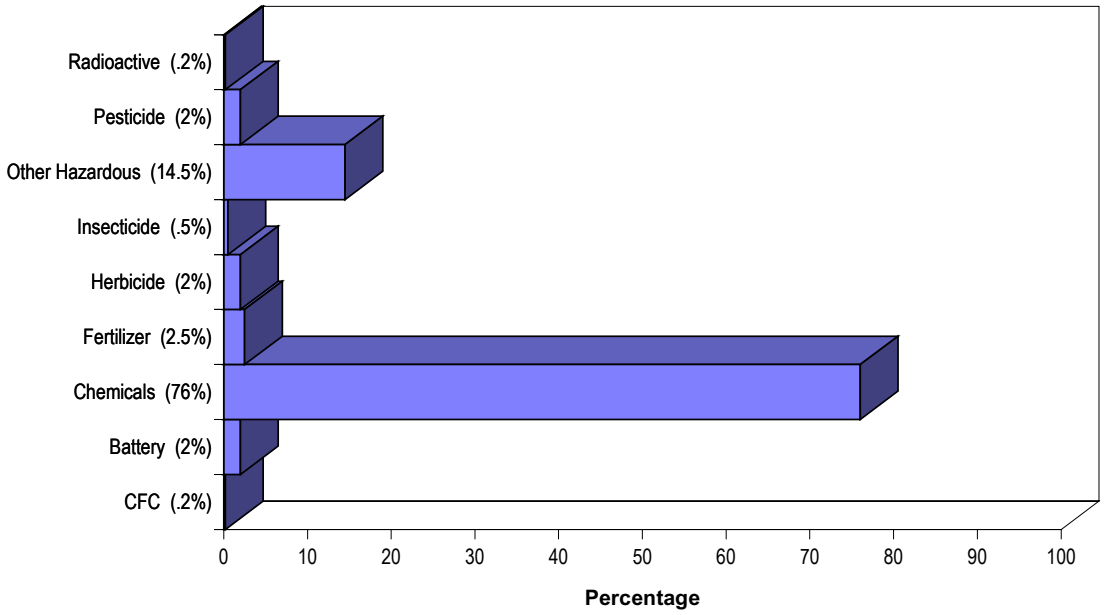
NOTE: The spill response data used for this annual report was obtained from Ecology's computerized Environmental Report Tracking System (ERTS), unless otherwise noted. It only includes information from the Spill Management Program and does not include spills handled by staff in other areas, such as water quality or industrial oversight.

In the following three graphs is a more detailed list of what is included in the main categories listed in the previous chart. Again, these are statewide averages for 1996 of spills/releases to water, land, and air.

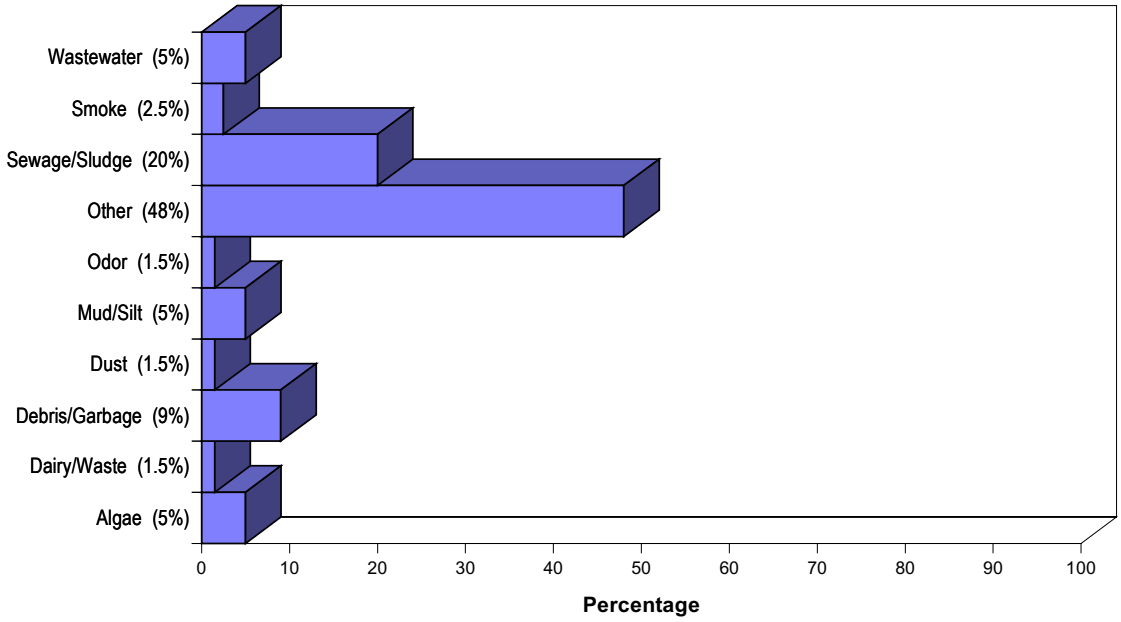
Oil/Petroleum Incident Reports



Hazardous Materials Incident Reports

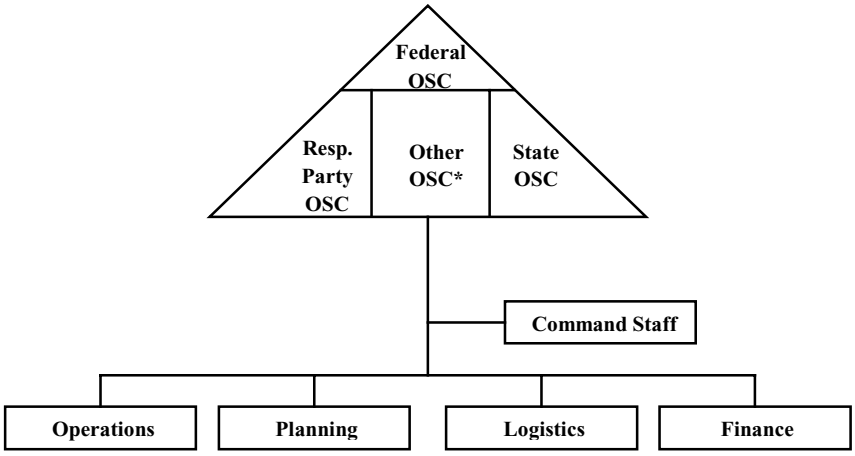


Miscellaneous Materials Incident Reports



Incident Command System

When a spill occurs, the most commonly asked questions are: "Who's in charge?" and "What's my job?" Ecology responders help reduce the confusion by using the Incident Command System (ICS) and a Unified Command (UC) structure. The ICS and UC structure combine the various roles of federal, state, local, and responsible party on-scene coordinators (OSC) into a single unified group. This provides a modular response structure, standard terminology, and common job descriptions that are easy to understand and integrate. It also allows spillers, cleanup contractors, and government agencies to meld rapidly into a single, coordinated organization which provides the most effective response to emergency spill events.



***Local and Tribal OSCs may be included in the command if appropriate.**

Investigations

Responders investigate the underlying causes of oil and hazardous material spills and other violations of state spill laws. Staff often coordinate their efforts with the U.S. Coast Guard, EPA, the state Office of Marine Safety, and local officials during the course of their investigations.

Drug Lab Response and Cleanup

Ecology supported state and local law enforcement agencies by making field responses to 98 potentially illegal drug lab sites in 1996. The majority of these labs were designed to manufacture methamphetamine. Under the state's Uniform Controlled Substances Act, Ecology is responsible for cleanup, removal, and disposal of suspected hazardous substances at these sites. Professional cleanup contractors are typically hired by Ecology to perform these tasks.

The sites are then turned over to local health departments for long-term cleanup and decontamination needs. According to Ecology cost recovery records for the first 11 months of 1996, the contracted cost for 87 drug lab cleanups was approximately $161,460, with two labs more than $7,000 each. These expenses do not include Ecology's direct labor costs. Cost recovery totals for the month of December were not available for this report.

Ecology attempts to get repaid for contracted expenses via a cost recovery process. Staff have increased their coordination with local prosecuting attorneys and arresting entities to recoup a greater percentage of contracted cleanup costs from responsible parties. At the time of sentencing, convicted drug lab operators are increasingly required to make restitution for damaged private property and cleanup costs paid by public entities.

In July 1996, Ecology's regions started keeping detailed records of its own staff and materials costs associated with drug lab cleanups. It is estimated that Ecology spent about $30,000 for staff time, overhead, and support costs in 1996 for drug lab cleanups.

Distribution of the 98 drug lab field responses for 1996 and the 87 contracted cleanups for January through November of 1996 are:

Drug Labs

County Distribution	Field Responses	Contracted Cleanups
Pierce	34	26
King	17	20
Thurston	14	8
Clark	7	13
Lewis	7	5
Mason	4	4
Benton	3	-
Snohomish	2	4
Grays Harbor	2	1
Yakima	2	-
Spokane	1	2
Kitsap	1	2
Clallam	1	1
Stevens	1	-
Chelan	1	-
Klickitat	1	-
Cowlitz	-	1
TOTAL	**98**	**87**

Ecology has seen a steady rise in the number of drug lab responses. For example, the drug lab cleanup response numbers are close to twice those from 1995, when only 57 lab cleanups occurred. For comparison, cleanup costs for 1996 are up almost 40 percent over 1995 costs. Ecology's response to potentially illegal labs tracks directly with the results of law enforcement surveillance and investigation activities.

In June 1996, response staff attended a one-day training seminar where narcotics officers described a World War II-vintage recipe for making methamphetamine, developed by Nazi chemists. The new method — commonly referred to as the "Nazi method" — uses easily obtained anhydrous ammonia, psuedoephedrine tablets, lithium batteries, and other common household chemicals. The result is pure "meth." Ecology responders are dealing with the safety issue of approaching jury-rigged propane tanks containing ammonia and the increasing costs of multiplying drug labs. This new method is probably a contributing factor to more drug lab activity.

In a cost-saving development, Ecology hopes to cut contracted costs when potentially illegal drug labs do not require contracted cleanup services. When it is safe to do so, responders pack and transport raw ingredients or wastes to household hazardous waste drop-off sites or other holding areas.

1996 Winter Rainstorm and Floods

The heavy rains and floods that plagued Washington in January and February 1996 produced a flurry of spill response activity, especially in the southwest and central regions of the state. For example, a variety of steel and plastic drums containing oil products, pesticides, and other hazardous materials washed into the Columbia, Cowlitz, Lewis, Nisqually, and Yakima rivers. Once these containers entered state waters and began showing up on shorelines several miles from their original location, tracking down a responsible party was virtually impossible. Operating under an emergency

authorization from the state Emergency Management Division and the Federal Emergency Management Agency, regional spill teams hired cleanup contractors to round up loose drums, categorize the hazardous materials inside, and dispose of them at authorized facilities. Ecology's response costs were close to $95,000, all of which has been reimbursed by state and federal disaster relief funds.

Burning Rubber Leads to Spills

In 1996, staff from Ecology's Spokane and Olympia regional field offices responded to two unique oil spills coming from newly constructed road embankments. Both spills involved oily residue oozing into state waters after the main roadbed fill material — recycled, chipped auto tires — caught on fire.

The first fire and spill occurred in Garfield County, located in southeast Washington. An ongoing road fill tire fire near the town of Pomeroy took several weeks to extinguish. The oil oozing from the tire fire was contained and kept out of Falling Springs Creek which passes through the fill. The second roadbed fire and spill occurred in Fort Canby State Park near the city of Ilwaco in the state's southwest corner.

It is still unclear why the recycled, chipped tire material at both sites began to spontaneously combust. A consultant and tire fire expert, Dr. Joseph Zelibore, told state responders he suspected moisture from winter flooding may have contributed to chemical reactions generating heat.

Ecology response expenditures in Garfield County totaled $21,275. A Non-Federal Agency Pollution Removal Funding Authorization was signed by EPA allowing Ecology to claim up to $20,000 in response costs from the national Oil Spill Liability Trust Fund. A formal cost recovery claim was recently completed and filed by Ecology. Response expenditures in Ilwaco were $24,572, and the state Department of Transportation (DOT) will reimburse Ecology 100 percent for this incident.

Summary of 1996 Significant Spills

January 5: ***Skagit County***
Ecology and state Office of Marine Safety staff concluded that a combination of human error and equipment malfunction led to a 241 gallon diesel fuel spill aboard the fishing vessel COMMODORE while the ship was undertaking internal fuel transfer operations at an Anacortes marina. The fuel spread from the marina, entered three nearby salmon fish ponds, and eventually made its way into Guemes Channel. As a result, thousands of salmon had to be released several weeks early.

February 5: ***Skagit County***
During bunkering operations at the Texaco refinery dock in Anacortes, the tank vessel NEPTUNE spilled about 630 gallons of "bunker C" fuel oil onto its deck, with 378 gallons going into the water. The ship owner hired contractors to respond to the spill, and Ecology coordinated beach cleanup activities at nearby Guemes Island. Ecology determined that the cause of the spill was a tank overfill due to the negligence of ship personnel.

February 8: ***Pierce County***
A southbound Burlington Northern freight train (above) derailed near Steilacoom when it hit an undetected mudslide and plummeted into Puget Sound. Although crew members escaped from the submerged train engine with only minor scratches, the accident ruptured the train's fuel tank spilling approximately 3,000 gallons of diesel fuel into the Sound. Burlington quickly hired cleanup contractors to place oil booms in the water and to assist with on-land spill containment and cleanup.

February 8: ***Douglas County***
While trying to avoid a head-on collision with an oncoming car, a gasoline tanker traveling on Highway 17 overturned, spilling approximately 6,000 gallons of gasoline into an adjacent field.

A nearby farm house was evacuated. The responsible party hired a cleanup contractor and assumed all liabilities and disposal responsibilities. After digging test trenches downhill from the site, Ecology and Washington State Patrol investigators established that the spill had not traveled far enough to affect drinking water wells or surface water. The spill was cleaned up and the family returned home after two days.

February 16: ***King County***
Response staff worked on a major abandoned hazardous material dump site in Maple Valley for several weeks beginning in February. There were dozens of different containers and drums which contained hazardous substances, including PCBs, lead, mercury, solvents, photo chemicals, batteries, heavy metals, asbestos, and other industrial wastes. Response staff led a large multi-agency effort with the property owner, King County, EPA, and Boeing to get the site cleaned up.

February 21: ***Cowlitz County***
A tanker truck carrying used oil was on its way to a recycling firm when the vehicle's brakes failed, sending the truck over a bank outside of Cathlamet. While some of the oil spilled as a result of the accident, even more oil was released when a private contractor tried towing the truck up the bank, and the uneven stress caused the tank to crack. Although about 2,600 gallons of used oil was eventually pumped out of the tank, a total of approximately 200 gallons leaked onto the ground. Fortunately, none of the oil reached a nearby creek.

February 24: ***Yakima County***
Flooding in the Naches River near Yakima caused the river to cut a new channel in the area. The flood waters washed through two auto-wrecking yards, an insulation company compound, and a residential area. Besides destroying many residences, more than fifty 55-gallon drums washed through the area. Ecology determined drum ownership and developed a recovery and disposal plan. Neighborhood residents pitched in with forklifts, front-end loaders and other equipment to successfully cleanup the scattered drums and dispose of them properly.

March 23: ***Cowlitz County***
A pipeline ruptured near Kalama as a result of soil movement from prolonged rains. The spill released at least 2,000 gallons of diesel fuel which entered a seasonal tributary of Spencer Creek, a salmon-bearing creek which flows into the Kalama River. Ecology investigators discovered that prior to the rupture, Olympic Pipe Line was made aware of the spill threat by contractors hired to inspect the line. The firm had ranked the Kalama site for future work behind four other sites.

June 17: ***Snohomish County***
At least 1,000 gallons of a combination of diesel fuel, gasoline, and jet fuel spilled from the Olympic Pipe Line into an unnamed slough near Everett as a result of a small crack in the underground pipeline. Olympic quickly responded to the spill and replaced the damaged section of the line. The cause of the spill was due to pipeline movement cause by improper back-filling when the pipeline was installed 1972.

June 27: ***Yakima County***
Eighteen 100-pound batteries came loose from a flat-bed truck and spilled into the median of I-82, south of Union Gap. No responsible party was identified. Working with the assistance of a Washington DOT crew, Ecology responders recovered the batteries and took them to a local recylcer for disposal. Even though a number of the battery casings were fractured, sulfuric acid leakage was kept to a minimum.

July 15: ***Grant County***
During a site visit to B&G Farms near Royal City, responders found 50 to 70 drums of various sizes and containing unknown substances. B&G took responsibility for cleanup of the drums belonging to them. Staff from Ecology's hazardous wastes and toxics reductions program took the lead to ensure that cleanup and drum storage management was completed.

August 16: ***San Juan County***
Two vessels collided in the San Juan Islands, causing the F/V KANSAS to sink off the shore of Fish Creek. Approximately 400 gallons of fuel spilled into the water, with about 250 gallons recovered. The KANSAS was left on the bottom of the Sound when it was determined the vessel would not withstand being raised.

August 26: ***Kitsap County***
The aircraft carrier NIMITZ spilled approximately 1,300 gallons of jet fuel while docked at the Puget Sound Naval Shipyard (PSNS) in Bremerton. It was the third significant spill from the ship in the last three-and-a-half years while it has been ported at the PSNS. Shipyard crews responded quickly to the spill on behalf of the ship. While the exact cause of the spill is unknown, the release occurred while internal oil transfer operations were being conducted.

September 3: ***Spokane County***
A semi tractor trailer ruptured its full 159 gallon fuel tank when it hit a water well pipe. The pipe was sticking approximately six-to-eight inches above ground in a graveled parking area in Spokane. The entire contents of the tank spilled at the well site. Diesel did not enter the well, but followed the well casing deep into the soil. The contaminated soil was excavated to a depth of 15 feet. Soil tests showed highly elevated hydrocarbon readings. The trucking company, Superior Lines, Inc., took responsibility for cleanup costs.

October 26: ***Benton County***
A combination of pesticides and pool, automotive, and other various chemicals were placed in the waste compactor at the Kennewick K-Mart store. When the compactor was turned on, the mixed chemicals reacted, creating a fire and chlorine gas cloud. The fire department responded to the incident, evacuated the store, and activated the local hazardous materials team. Ecology staff worked with K-Mart in securing a cleanup contractor.

November 20: ***Skagit County***

A tanker truck loaded with 9,200 gallons of diesel fuel from the Texaco refinery at Anacortes slid off an icy road, went over an embankment, and landed upside down in Fidalgo Bay. Only about 20 gallons of fuel were lost through pressure valves on top of the tanker, but a major response operation took place to prevent the release of additional oil into the environmentally sensitive bay. All of the product was removed safely from the truck without any further spills of oil, and the truck was successfully raised out of the water, thereby averting a major spill incident.

December 6: ***King County***

A major oil spill occurred at the GATX oil storage facility on Harbor Island when a coupling link on one of the transfer pipelines pulled completely apart and released 48,000 gallons of unleaded gasoline. All of the gas spilled within a containment area, so surface waters were not affected. However, major groundwater contamination occurred. The Seattle Fire Department and other agencies were involved in the initial response, due to public health and safety concerns. Staff from Ecology's spill management and toxics cleanup programs coordinated the spill response and long-term remediation plans for the site. The cause of the pipeline rupture has yet to be determined.

December 17: ***Grays Harbor County***

The vessel KATHY G released several hundred gallons of diesel fuel into the Westhaven Marina in Westport when a fuel line malfunctioned. The ship's automatic pump then jettisoned the fuel into the water. The spill was contained inside the marina.

Enforcement

In 1996, Ecology issued $30,500 in penalties and handed out two administrative orders for four significant spills. An additional $6,000 in penalties involved Oil Spill Field Citations for moderate and small-sized spills. The following summarizes significant enforcement activities for last year:

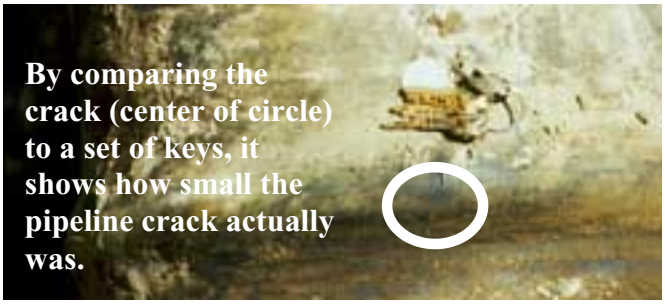
NEPTUNE
On February 5, 1996, the tank vessel NEPTUNE spilled approximately 400 gallons of "bunker C" fuel oil into Puget Sound while refueling at the Texaco Dock in Anacortes. Ecology responders investigating the spill determined that the incident was a result of negligence, since reasonable precautions were not taken to prevent a tank on the vessel from overfilling. The owners of the vessel, Fourth Products Tanker, Inc., were fined $16,000 for causing a negligent discharge of oil to state waters.

Olympic Pipe Line Company
Ecology fined the Olympic Pipe Line Company of Renton a total of $13,500 for two different oil spills to state waters. Both spills occurred during the first half of 1996. In each case, the company took immediate responsibility and responded quickly.

The first spill occurred on March 23 after the firm's pipeline ruptured near Kalama in Cowlitz County following soil movement caused by prolonged rains. At least 2,000 gallons of diesel fuel were released into a seasonal tributary of Spencer Creek, a salmon-bearing creek that flows into the Kalama River.

Ecology investigators discovered that prior to the rupture, Olympic was made aware of the right-of-way's instability by contractors hired to inspect the line. The firm had ranked the Kalama site for future work behind four other sites. Ecology fined the company $7,000 for the spill. An administrative order was also issued to Olympic requiring them to take specific actions to improve the firm's ability to respond to multiple high risk sites.

The company's second spill occurred on June 17 near Everett, after a section of the company's 20-inch interstate underground petroleum pipeline began leaking. At least 1,000 gallons of diesel fuel, jet fuel, and gasoline were released into a ditch adjacent to Ebey Slough in Snohomish County. The ditch is connected through a series of culverts, ditches, and sloughs to the Snohomish River. Ecology levied a $6,500 fine for this spill.


By comparing the crack (center of circle) to a set of keys, it shows how small the pipeline crack actually was.

When the pipeline was unearthed, investigators observed a crack in the metal pipe from which oil was spurting. The cause of this spill was attributed to a pipeline section that buckled and began leaking due to pipeline movement believed caused by improper back-filling when the line was installed in 1972.

The incident prompted the company to re-examine data obtained from earlier internal inspections of its pipelines. This re-examination successfully revealed two more non-leaking buckles in the same pipeline about two miles south of the Ebey Slough site. The company acted quickly to repair the pipeline's newly-found buckles. In addition to the penalty, an administrative order was issued to Olympic requiring specific actions to identify other potential problem or high risk areas along the pipeline.

Pettit Oil
On February 5, 1996, a diesel fuel spill occurred at the Pettit Oil tank farm in Hoquiam. Approximately 330 gallons of fuel entered a drainage ditch which flows into Grays Harbor. An investigation revealed that negligence was a contributing factor to the spill. Pettit Oil was fined $1,000 for the illegal discharge of oil to state waters.

Oil Spill Field Citations
This formal enforcement tool, which was introduced in September 1994, was modified during 1996 to comply with "regulatory reform" legislation passed in 1995 and 1996. Additionally, field citations can now be issued by responders for all sources of oil spills, not just those that originate from vessels or regulated bulk-oil handling facilities.

In 1996, eight citations totaling $6,000, were issued for spills from several types of commercial fishing vessels, cargo vessels, and a construction tug/barge. All of the citations were for the unauthorized discharge of oil to state waters.

AN PING 6 Settlement

The Chinese shipping firm Shanghai Hai Xing Shipping, Ltd. agreed to pay $300,000 for a January 1994 oil spill into the Columbia River from their vessel AN PING 6. This amount includes 90 percent of the original penalty levied against it by Ecology, in addition to paying environmental damages and the agency's costs to respond to the spill. The settlement is the largest ever received by Ecology for an oil spill. It comes after the shipping firm lost an appeal to the state Pollution Control Hearings Board (PCHB) in 1995.

The PCHB upheld the penalty levied by Ecology for violation of the state's oil spill prevention and response regulations. The company appealed the PCHB ruling to Thurston County Superior Court, but dropped the appeal in favor of reaching a settlement. The PCHB ruled that 800 to 1,500 gallons of heavy fuel oil was spilled into the Columbia River at Longview due to negligence by the crew during refueling of the 610-foot grain carrier. At one time the oil slick reached 20 miles downstream. The cleanup lasted several weeks.

The $300,000 includes:

- **$144,000 penalty.** The money went into the Coastal Protection Fund and will be used by Ecology for environmental restoration and related activities. $40,000 is earmarked for oil response equipment dedicated to the Columbia River.

- **$132,622 to cover agency cleanup costs.** The money went to the Oil Spill Response Account to reimburse funds used by state agencies to respond to oil spills.

- **$23,378 for environmental damages.** The money also went into the Coastal Protection Fund.

Restoration

In addition to penalties and cleanup expenses, those responsible for oil spills must also compensate Washington citizens for damage to public natural resources. Ecology coordinates the assessment of oil spill damages and oversees efforts to restore injured resources in cooperation with other state resource agencies.

Natural Resource Damage Assessment

1996 marked a year where several significant settlements confirmed the value of the oil spill compensation schedule as a damage assessment tool. Washington's oil spill compensation schedule allows the state Resource Damage Assessment (RDA) Committee, chaired by Ecology, to assess damages for state natural resources for small and medium-size spills — damages which otherwise would not be pursued if traditional damage assessment studies were the only option.

Besides Ecology, the RDA Committee includes representatives from the State Parks and Recreation Commission and the departments of Fish and Wildlife, Natural Resources, Health, and Community, Trade and Economic Development's Office of Archaeology and Historic Preservation.

In one of the most significant settlements, the U.S. Navy agreed to pay $38,000 for natural resource damages caused by the April 15, 1993, USS CAMDEN jet fuel spill in Sinclair Inlet at the Puget Sound Naval Shipyard. This precedent-setting agreement has paved the way for continued cooperation in assessing damages from other Navy spills. Damages from the 1993 AN PING 6 oil spill on the lower Columbia River were also paid last year.

In total, spillers paid over $142,000 in oil spill damages during the last year. A number of other claims are still being pursued or under development for 1996 spills (see table on next page).

Furthermore, the RDA Committee established a new credit which recognizes the effect that rapid oil recovery has on reducing natural resource impacts from a spill. The credit reduces the compensation schedule's calculations of natural resource damages based on the amount of oil removed from the water within 24 hours of the spill.

In deciding how to apply the credit, Ecology looks at:

- Whether recovered oil is stored and measured in accordance with the guidance document;
- Where and how oil is contained and recovered; and
- The degree of shoreline impacts.

Ecology prepared guidelines for the storage and measurement of recovered oil to accompany this credit. The new provision has already been applied to a number of recent compensation schedule claims.

The following table lists significant RDAs paid last year:

Significant Natural Resource Damages Assessed/Paid in 1996

Date	Spill Location	Oil Type	Responsible Party	Gallons	RDA $ Assessed
4/15/93	Sinclair Inlet	Jet fuel	U.S. Navy	5,400	$38,000 - paid in full
1/10/94	Columbia River	Bunker fuel	*An Ping 6*	2,771	$23,378 - paid in full
2/15/94	Duwamish River	Gas/ Diesel	NW Enviro Service	3,146	$53,362 - paid in full
6/6/94	Sinclair Inlet	Diesel	U.S. Navy	200	$1,386 - paid in full
8/9/94	Sinclair Inlet	Diesel	U.S. Navy	325	$2,484 - paid in full
10/27/94	Sinclair Inlet	Jet fuel	U.S. Navy	3,700	$17,781 - paid in full
7/18/95	Elliott Bay	Diesel	*Rybackautoky*	100	$1,763 - paid in full
8/9/95	Blair Waterway	Bunker fuel	*Gastello*	50	$1,059 - paid in full
8/26/95	Sail River	Diesel	Olympic Fish Co.	78	$1,772 - paid in full
1/5/96	Anacortes	Diesel	*Commodore*	241	$4,152 - paid in 1997
2/5/96	Grays Harbor	Diesel	Pettit Oil Co.	332	Restoration plan under development
2/8/96	Steilacoom	Diesel	Burlington Northern	3,200	Restoration plan under development
2/26/96	Sinclair Inlet	Diesel	Tug YTB-812	100	$1,503 - not paid
3/23/96	Spencer Creek	Diesel	Olympic Pipe Line	1,561	$6,519 - not paid
3/25/96	Lake Union	Diesel	*Northern Lady*	450	$1,146 - paid in full
5/15/96	Swinomish Channel	Diesel	Expeditions 3	100	$2,147 - not paid
6/17/96	Snohomish Slough	Diesel & gas	Olympic Pipe Line	1,000	$2,933 - not paid

Restoration

Payments received from compensation schedule claims go into the state Coastal Protection Fund (CPF). A steering committee comprised of representatives from Ecology, the state departments of Fish & Wildlife and Natural Resources, and the state Parks & Recreation Commission disburses these funds for restoration-related projects. Funds continue to accumulate in three regional accounts used to pool assessments from smaller spills. In 1996, the South Sound regional account grew to more than $100,000 and is now under consideration by the CPF Steering Committee for funding restoration work in that region this year.

Last year Ecology and the CPF Steering Committee entered into an interagency agreement with the U.S. Forest Service to initiate the first major expenditure from this fund. By allowing the Forest Service to use the $122,696 damage payment from the 1993 NOSAC FOREST spill, a nearly $2 million major road decommissioning/relocation project will occur which will greatly benefit habitat of White River Chinook salmon, a key species affected by the NOSAC FOREST spill.

The photo on the left shows the destruction of U.S. Forest Service Road #70 from recent floods. Instead of repairing the road, almost three miles of it will be relocated out of the Greenwater River floodplain. The photo below is the area of the Greenwater River which will most benefit from the CPF expenditure. Along with bridge removal, all existing culverts and road fill at three different locations will be eliminated. The result will include the re-establishment of two side channels which are critical habitat for spring Chinook salmon. Fish resources will be enhanced in two ways. The potential for stream bank erosion and channel widening will be eliminated from the site where the bridge was located and another mile downstream. Three side channel areas of the river will be reconnected to the main channel. This will provide more rearing and spawning habitat areas and protect the already existing fish habitat log structures located downstream.

Coordination

During 1996, Ecology continued to place a high priority on coordinating its spill prevention, preparedness, response, and restoration efforts with industry, the environmental community, tribes and other local, state and federal agencies. This coordination heightens Ecology's effectiveness and reduces duplication of effort while taking advantage of opportunities for joint initiatives.

State Emergency Management Council

The State Emergency Management Council (EMC) began meeting formally in 1996. The organization will provide a report to the Governor which includes "an annual assessment of statewide emergency preparedness including, but not limited to, specific progress on hazard mitigation and reduction efforts, implementation of seismic safety improvements, reduction of flood hazards, and coordination of hazardous materials planning and response activities."

EMC will continue to convene the State Emergency Response Commission (SERC) to address emergency planning needs and community right-to-know issues related to hazardous materials (HAZMAT) releases and spills. Ecology has an active interest in release and spill prevention, and in HAZMAT response. Agency managers also participate as a members of both EMC and SERC.

States/BC Oil Spill Task Force

Most coastal states and provinces have active spill prevention and response programs. It is vital that we share ideas and approaches with these programs — not only for efficiency but to provide consistency to streamline industry compliance efforts. Another reason for maintaining close contact with our neighboring spill prevention and response agencies is that major spills do not respect political boundaries. For these reasons, Ecology has placed a high priority on maintaining close ties with others on the West Coast. The bulk of this coordination effort occurs through the States/BC Oil Spill Task Force.

In addition to Washington, the Task Force includes representatives from Alaska, British Columbia, Oregon, and California — with whom we share common waterways, sensitive natural resources, and like societal values. The Task Force is recognized as a national leader in coordinating spill issues. In fact, other coastal states are interested in joining the organization or forming similar organizations in other regions of North America. The Task Force is regularly approached by industry and federal agencies for support and advice.

Current Task Force projects include:

- A study of pilotage organizations;
- A study of West Coast tank vessel routing;
- Spill data systems to enable industry and government to understand the primary causes of spills;
- Program consistency review; and
- Continuing implementation of the Task Force's spill response system.

The Task Force's annual meetings are hosted by the members on a rotating basis. Washington will host this year's meeting which is tentatively scheduled for mid-July in Seattle. In addition to representatives of the West Coast response community, all other coastal states and provinces will be invited to attend to discuss national coordination mechanisms and issues of common interest.

An example of a specific desirable outcome which could eventually result from this effort is a broad commitment of most (if not all) coastal states to the concept of mutual aid. This means that any state needing assistance in responding to a major spill could receive rapid assistance from any other state and unencumbered access to response contractors in other jurisdictions.

State/Federal Coordination Activities

Ecology continues as an active member of the Northwest Area Committee and the Regional Response Team. These umbrella spill preparedness organizations provide an effective mechanism to facilitate federal/state coordination. With the support of these organizations, we have developed geographic response plans, trained local agency spill responders, and coordinated the scheduling of oil spill drills.

Other Coordination Activities

Ecology, the state Office of Marine Safety, and other state agencies have worked together closely on a number of initiatives including:

- A study of oil spill tax revenue and alternatives for stabilizing the Oil Spill Administration Account completed by the Office of Financial Management;
- A continuing cooperative spill prevention effort by state agencies, Coast Guard and industry to oversee annual preparations for the departure of Washington's fishing fleet for Alaskan fishing grounds; and
- Continuing efforts on tribal coordination regarding natural resource damage assessments.

Technical Assistance and Compliance Assurance

Numerous formal and informal technical assistance and compliance assurance activities were carried out by the Spill Management Program during 1996. These activities can be divided into three categories consistent with the technical assistance provisions of the state's regulatory reform law. The categories are:

Formal Compliance Inspections or Site Visits

These types of activities occur when Ecology staff respond to incidents involving the spill or release of oil or hazardous substances to ensure that the responsible parties comply with state laws pertaining to spill containment and cleanup. Compliance inspections also occur when staff occasionally make unannounced visits to the state regulated bulk-oil handling facilities or other facilities with hazardous substances to review their spill contingency plans.

Formal Technical Assistance Site Visits

Technical assistance visits occur when staff and regulated facilities agree to meet ahead of time to conduct drills and evaluate drill performance. Facility advisory inspections are also conducted to assist facilities in complying with state Facility Oil Handling Operations and Design Standards.

Formal technical assistance and compliance assurance activities for 1996* are summarized below:

Compliance Inspection Site Visits	**798** — 779 field responses/19 inspections
Technical Assistance Site Visits	**191** — 116 technical assists/75 drills **39** — Facility Advisory Inspections

Informal Technical Assistance

This type of technical assistance is generally intended to help parties with a potential for oil or hazardous material spills comply with state laws and rules. This can include the preparation and distribution of printed information, the delivery of information or assistance via telephone, on-site visits, meetings, or other activities.

* *The source of this data is from the regional offices' monthly reports and Headquarters' staff files. It was not obtained from the Environmental Report Tracking System (ERTS).*

Future Challenges

While Washington has experienced several multi-thousand gallon spills since the state Legislature passed the 1991 Oil Spill Prevention and Response Act, there was only one spill in 1996 which exceeded 10,000 gallons. This, in part, may reflect the effectiveness of the programs the Legislature has established. It also demonstrates the strength of the partnerships Ecology has forged with other local, state and federal agencies, tribes, industry, environmental groups, and other interested parties.

While the apparent reduction in the number of major spills may imply that we can all breath a little easier, our optimism must be tempered with reality. Washington is the fifth largest oil refining center in the United States, and during the past six years state refineries have been steadily increasing their production capacities. Puget Sound is the busiest vessel port on the West Coast. In the future, petroleum products refined in Washington will probably be increasingly exported to other western states.

Major spills can occur at pipelines or due to tanker truck and rail accidents — areas where state spill prevention programs need to be strengthened. It is not a matter of *if* we will have another major oil spill — rather it is a matter of *when*. Washington has been lucky in avoiding large spills. The following are future challenges we need to keep in mind.

Major Transportation Pipelines

Every year, billions of gallons of oil are transported through Washington by pipeline. Ecology needs to evaluate spill risks associated with oil transportation pipelines to determine what higher level of environmental protection is needed

In Washington, pipelines account for approximately 50 percent of oil product movement within the state. These same pipelines also supply 70 percent of Oregon's oil needs. During the last four years, 25 percent of the oil spilled in the state has come from pipelines. Recent spills from the Olympic Pipe Line near Everett and Kalama, as well as the proposed construction of the Cross Cascades Pipeline project, have prompted general public interest in oil pipelines and prevention measures are probably warranted.

It is often difficult to determine the quantity of oil lost during pipeline spills. Ecology will continue to review the cause of these and other similar spill incidents with industry to gain a better understanding of how these spills can be prevented. The state also has a responsibility to ensure that any new or repaired pipeline sections are constructed and operated in a manner which minimizes the opportunity for oil spills.

Spill Investigations

Ecology would like to improve its investigation procedures during spills with the goal of improving society's understanding of the causes behind each spill. The information from improved investigations would be used to educate facility personnel so similar spills could be prevented.

Facility Near-Spill Incident Reporting

Only a small proportion of all facility operational errors and mechanical failures result in actual spills. There is a need to collect information on near-spill incidents and provide this information to all facility operators. The opportunity to learn from "close calls" is enormous. Spills can be averted as a result of some positive design feature or personnel action. This technical assistance effort would help heighten awareness and prevent spills through the dissemination of technical information without new regulatory initiatives.

Non-Regulated Facility Technical Assistance Program

There are numerous bulk petroleum facilities in Washington that are not regulated by Ecology's spill prevention program. The agency needs to inventory these non-regulated facilities and develop guidance to assist them. This would include identifying the most successful elements of Ecology's existing spill prevention and response program for regulated facilities, and provide this information to non-regulated facilities. Under this voluntary technical assistance program, the agency would distribute free guidance to non-regulated facilities.

Oil Test Burn EIS and Advisory Committee

Last summer, Ecology suspended work on an "in situ" test burn slated for September 1996 on Washington's outer coast. The decision was made after citizens and communities expressed numerous concerns about the location and environmental impacts of the proposal.

The agency, in conjunction with other state and federal spill preparedness and response agencies in the Pacific Northwest, is now working on an Environmental Impact Statement (EIS) to analyze the environmental impacts of the proposal and other alternatives. Ecology has also formed an advisory committee comprised of stakeholders to give guidance on the EIS evaluation and assist with public outreach strategies. Ecology anticipates completing the final EIS in late 1997 and will base its subsequent action on the preferred alternative.